

Soil Leaching and Runoff Ratings

Soils have been given relative ratings of **slight, moderate or severe** for potential to move pesticides downward beyond the root zone (soil leaching rating) and have also been given **slight, moderate or severe** ratings for potential to move pesticides beyond a field's edge in runoff (soil surface loss rating). Soil properties affecting movement include texture, organic matter content, soil depth and slope steepness. Soil ratings for individual soil mapping units are located in NRCS local field offices.

Pesticide Leaching and Runoff Ratings

Many pesticides have been given **small, medium or large** ratings for potential to move downward in the root zone (pesticide leaching rating) or beyond a field's edge in runoff (combined surface loss rating). Pesticide leaching and runoff ratings are found in NRCS Field Offices.

Soil and Pesticide Interaction Potential*

The potential for an individual pesticide to move away from the application site is dependent on the interaction of soil and pesticide properties as well as other variables. A soil's leaching or runoff ratings are combined with a pesticide's leaching or runoff ratings to simulate soil/pesticide interactions. The result is a matrix rating of **potential 1, 2 or 3**. A 1 indicates highest potential depending on site variables; a 2 means a medium or low potential depending on site variables; and a 3 means a low probability of movement. It should be noted that the matrix ratings are 1st approximations of pesticide movement and also do not take into consideration pesticide toxicity or potential to negatively impact non-target species.

Determining the soil/pesticide interaction rating

Soil/Pesticide Leaching Potential

Soil Leaching Rating	Pesticide Leaching Rating		
	Large	Medium	Small
Severe	Potential 1	Potential 1	Potential 2
Moderate	Potential 1	Potential 2	Potential 3
Slight	Potential 2	Potential 3	Potential 3

Soil/Pesticide Runoff Potential

Soil Runoff Rating	Pesticide Surface Loss Rating		
	Large	Medium	Small
Severe	Potential 1	Potential 1	Potential 2
Moderate	Potential 1	Potential 2	Potential 3
Slight	Potential 2	Potential 3	Potential 3

Effectiveness Ratings**

Effectiveness Ratings to control a target pest can be found in Univ. of Minnesota bulletins such as [BU-3157-GO. 2001 Cultural and Chemical Weed Control in Field Crops.](#)